

# 44/2014 STATISTICAL REFLECTIONS

13 June 2014

## Minimum of subsistence, 2013

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#### Minimum of subsistence, 2013

Indicators for measuring the living standard can be classified in several ways. Income-based indicators, material deprivation indices, index numbers relating to the subsistence level and the social minimum, indicators embracing the different areas of exclusion as well as approaches focusing on the subjective dimension of poverty can be separated. Among these some can be linked to the relative notion of poverty and social exclusion in so far as they attempt to involve those living under different living conditions compared to the whole of the inequality relations of the population, however, others can be linked to the absolute notion of the phenomenon because they embrace the social differences based on the minimum value of social participation determined on the basis of some external criterion. This latter group includes the minimum of subsistence.

The calculated minimum of subsistence has been published annually by HCSO since 1991. This threshold is the amount related to the continuous living costs which – at the given stage of development of the society – meets the modest, conventionally basic needs of those living in private households. The minimum of subsistence, which was thus detected, is not a poverty threshold but an income that allows satisfying needs beyond the basic ones.

Out of the two internationally accepted basic calculation methods of subsistence level, the so-called normative calculation was applied in Hungary in the last 25 years, which is based on the determination of food consumption values. The basis of food norms is the food basket compiled by the National Institute for Food and Nutrition Science, which, in addition to the characteristics of healthy nutrition, takes also age-specific features into consideration. The value of the food basket is the forint amount of the items contained in the basket calculated on the typical prices in the given period, while the minimum of subsistence is the monthly average amount of the total personal expenditure of households consuming food in a value around food norms.

The average **monthly** amount of the minimum of subsistence per one consumption unit calculated on the basis of consumption data of households whose food consumption is similar to the norms was **in 2013 HUF 87,510, 1.8% higher than a year earlier**.

Minimum subsistence levels are determined for active and pensioner households, as well as for the different household types within them. In 2013, the monthly minimum of subsistence of households consisting of two active aged persons and two children considered typical was HUF 2.90 x 87,510 = HUF 253,779, while it amounted to HUF 78,759 in case of one-member pensioner households.

In the comparisons of the European Union on poverty and exclusion, the income-based, relative approach is accepted. In accordance with this, the member states determined the poverty threshold as 60% of the median income by applying the so-called OECD2<sup>1</sup>) equivalence scale. In Hungary, this amounted to HUF 66,399 /month/consumption unit in 2012.

In recent years, the minimum of subsistence indicator was widely criticized. The biggest problem is that the name does not clearly reflect the content, it suggests as if all people living below the poverty line would be deprived. In contrast, the content of the food basket complete in respect of nutrition physiology, as well as the subsistence levels compared to food norms and the components of consumption on minimum of subsistence are characterized by a level which is still accepted socially and not by malnutrition, unhealthy, overcrowded housing conditions or clothing and cultural conditions lagging completely behind social expectations. In addition, current methods and the sample size do not allow for differentiation by settlement group, region or occupational group, which dimensions would be good to detect important differences. All of these make it necessary to review the methodology of the subsistence level calculation in the near future.

#### Calculation of the minimum of subsistence values

#### Average minimum of subsistence

The minimum of subsistence is calculated by the Hungarian Central Statistical Office by taking normative food consumption as a starting point and using consumption data of households whose food consumption is similar to the norms.

When **calculating normative food consumption**, those food quantities are taken into account, which were elaborated by the National Institute for Food and Nutrition Science. The food basket used in the calculation of minimum of subsistence contains these food quantities broken down for nearly 100 different products. The practice of applying food basket instead of total consumer basket was confirmed by experiences as well. Due to the wide range of demands, the consensus-based determination of the full consumer basket is practically impossible, while physiologically required food consumption cannot be replaced by anything else and so it can be determined with an acceptable accuracy on the basis of nutrition physiological knowledge.

The content of the subsistence level's food basket covers the total nutrient, mineral and vitamin needs meeting health and nutrition requirements in case of medium physical work. For people of active age, the normative food quantity contains among others daily 81 g protein

1) OECD2 consumption unit scale: the first adult represents 1, each other adult 0.5 and children under 14 years of age represent 0.3 consumption unit.

(within this, 32 g animal protein), 83 g fat, 356 g carbohydrate, 800 mg calcium, 3500 mg potassium, 18 mg iron and 60 mg vitamin C.

The value of the normative food consumption is the amount of quantities in the food basket calculated on the typical prices in the given period. By multiplying the quantities in the basket by the average prices in 2013, the cash value of the basket was **HUF 24,099** /month, which corresponded to the food norms of an adult of active age in 2013.

The nutrient needs of people in different ages are different. According to the calculations of the National Institute for Food and Nutrition Science, the food norms of children aged 0–14 years are 77.8%, while those of 60 year-old and older people are 88.2% of the norms of adults of active age. Thus, along with the food norms of adults of active age amounting to HUF 24,099 /month in 2013, the food norms of children aged 0–14 years amounted to HUF 18,749 /month and those of elderly people to HUF 21,255 /month. Based on these values, the food norms of households with different number of members and of different age composition can be determined by adding up the norms of persons living in the household. So, for example, the food norms of a household consisting of two adults of active age and two (0–14 year-old) children equal: HUF 2 x 24,099 + 2 x 18,749 = HUF 85,696 /month.

#### Table 1

### The normative food basket of adults of active age for calculating minimum of subsistence, 2013

Main groups of food	Quantity/ month, kg	Value, HUF/month <sup>a)</sup>
Meat and meat products, fish and		
fish products	3.4	4 671
Egg (161 pieces/year)	0.5	510
Milk (of 2.8% and 1.5%)	7.7	1 848
Cheese, other diary products	2.4	2 122
Fats and oils	1.4	1 191
Cereals	9.0	3 539
Sugar, cocoa, honey	1.2	562
Potato	4.0	691
Fresh and preserved vegetables	11.6	4 502
Fresh and preserved fruits	6.5	2 364
Legumes	0.4	223
Spices, etc.	_	1 111
Coffee, tea, non-alcoholic beverages	-	764
Total	-	24 099

a) Calculated on average consumer prices in 2013.

Those households are considered to be food consumers corresponding to the norms, which spend on food globally a forint amount around the norms characteristic of the given household type ( $\pm$  20%). Another stipulation is that the income of the household should not be unrealistically high or low in respect of calculating minimum of subsistence and that it should not have investment-type expenditures. Therefore, 5% of the population with the lowest income and one third of the population with the highest income, as well as households having purchased passenger car or invested on housing in the reference period of the survey irrespective of their income were left out of consideration. After the above exclusions, among the participants of the Household Budget and Living Conditions Survey, 1,449 households met the criteria in 2013. They composed the stock of households for the calculation of minimum of subsistence.

In addition to food norms, the minimum of subsistence must include forint amounts to be spent on other needs as well. In our time, it is practically impossible to calculate these expenditures by items on the basis of consensus due to the wide range of needs. Therefore, the minimum of subsistence is numerically defined as the **monthly average value of total personal expenditures** of households who spent on food consumption a forint amount similar to the norms. This definition relies on the so-called Engel's law stating that there is a definite connection between food consumption and other expenditures. The stock of 1,449 households forming the basis of the subsistence level calculation in 2013 represents 466 thousand households, within them 1 million 109 thousand persons and a monthly average consumption expenditure of HUF 78 billion 564 million. Consequently, the monthly average minimum of subsistence was HUF 168 thousand/household. Among households, 833 were active, 554 were pensioner and 62 were other inactive households. In another approach, there were 453 single persons, 605 households with more than one person without children, 234 households with one, 128 with two and 29 with three of more children. They have in common that their food expenditure is near the amount of the food norms.

These households spend – similarly to the previous year – 33.0% of their personal expenditure on food and 28.8% on housing, nearly 56.6% of which is spent on household energy, which is a 3.4 percentage points lower rate than in 2012. In respect of other consumption, 15% of their expenditure is spent on the running costs of transport and communications, 9.4% on health, personal hygiene and clothing, and 4.7% on education, recreation and culture. These low proportions definitely decreased compared to those a year earlier, which were very moderate as well.

#### Minimum of subsistence values in different household types

The precondition for the practical use of subsistence levels is that they should be differentiated for households of different sizes and types. Neither the average amount of HUF 168 thousand per household nor the average amount of HUF 70.8 thousand per capita can be equally true for households with few or with many members. In line with the international statistical practice, calculations based on the consumption unit scale (equivalence scale) are applied for differentiation.

The essence of the calculation is that considering the first adult member of the household one consumption unit, the other members of the household represent a consumption unit smaller than one, since there are numerous expenditures in a household, which do not depend on the number of household members, or, if there is any relation, it is not linear. According to consumption needs, a small child or an elderly person represents a consumption unit somewhat smaller than a person of active age. Based on all these, in terms of consumption, the size of a household can be characterized by the number of consumption units.

### Consumption unit scale of subsistence level calculations in HCSO (equivalence scale)

Table 2

In households of persons of active age		In households of persons above retirement age			
First adult family member Other adult family members First (0–14 year-old) child Second (0–14 year-old) child Third and each other (0–14 year-old) child	1.00 0.75 0.65 0.50 0.40	First adult family member Other persons	0.90 0.65		

By applying this scale, a household consisting of one active adult corresponds to 1.00 consumption unit, a household with one active adult and one child equals 1.65 (1.00 + 0.65 = 1,65), while a four-member household with two members of active age and two children corresponds to 2.90 (1.00 + 0.75 + 0.65 + 0.50 = 2.90) consumption units.

The population consisting of 1,449 households – the stock of households for subsistence level calculation – represented 898 thousand consumption units, and, by dividing the above mentioned monthly expenditure of HUF 78.6 billion by this data, we get the average amount as a quotient. In 2013, the average minimum of subsistence per one consumption unit was HUF 87,510 Ft per month.

The subsistence level by household type is the product of the number of consumption units by household type and the average amount calculated for one consumption unit. The subsistence level of households with two persons of active age and two children, which can be considered typical,

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### 0.

#### Table 3

Minimum of subsistence	values in different	household types	, 2013
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	Monthly amount calculated for						
Household type	one household, HUF		one pers	on, HUF	Subsistence level/	Number of consumption units	
	total	of which: food	total	of which: food			
Households of persons of active age							
1 adult	87 510	24 099	87 510	24 099	3.63	1.00	
1 adult with 1 child	144 392	42 848	72 196	21 424	3.37	1.65	
1 adult with 2 children	188 147	61 597	62 716	20 532	3.05	2.15	
2 adults	153 143	48 198	76 571	24 099	3.18	1.75	
2 adults with 1 child	210 024	66 947	70 008	22 316	3.14	2.40	
2 adults with 2 children	253 779	85 696	63 445	21 424	2.96	2.90	
2 adults with 3 children	288 783	104 445	57 757	20 889	2.76	3.30	
2 adults with 4 children	323 787	123 194	53 965	20 532	2.63	3.70	
3 adults	218 775	72 297	72 925	24 099	3.03	2.50	
3 adults with 1 child	275 657	91 046	68 914	22 762	3.03	3.15	
3 adults with 2 children	319 412	109 795	63 882	21 959	2.91	3.65	
3 adults with 3 children	354 416	128 544	59 069	21 424	2.76	4.05	
3 adults with 4 children	389 420	147 293	55 631	21 042	2.64	4.45	
Households of persons above retirement age							
1 person	78 759	21 255	78 759	21 255	3.71	0.90	
2 persons	135 641	42 511	67 820	21 255	3.19	1.55	
3 persons	192 522	63 766	64 174	21 255	3.02	2.20	

was  $2.90 \times HUF 87,510 = HUF 253,779$ . In these households, the average subsistence level per capita was HUF 63,445. In 2013, the amounts per capita in the different household types were around the average of HUF 70.8 thousand and dispersed between HUF 54 thousand and HUF 88 thousand.

The per capita amounts in 1-2 person households were above the average, while in households consisting of more people they were less than the average because in case of the latter group, inflexible expenditures are divided among more people, and the global amount of the consumption of small children is less than that of adults. In the different household types, the quotient of subsistence level and food norms is between 2.63 and 3.71. The

Time series of minimum of subsistence values

highest values are characteristic of one-person households, while the lowest ones of households with more than 5 persons.

One of the specific features of the present calculation method is that the results show the effect of changes in living standards – moderated to some extent – as well. While food norms are fixed, the amount of consumption other than food is influenced by the changes in living standards. In case of decreasing living standards, the quotient of subsistence level and food norms diminishes, while it increases if living standards improve, since those consuming food according to the unchanged norms can spend more on other needs. Between 2012 and 2013, this ratio decreased in each household type.

#### Table 4

#### (HUF/months) Household types 2000 2005 2010 2011 2012 2013 Per one household Households of persons of active age 83 941 85 960 87 510 1 adult 34 475 56 408 78 736 1 adult with 1 child 56 884 93 073 129 914 138 503 141 834 144 392 1 adult with 2 children 74 121 121 277 169 282 180 473 184 814 188 147 2 adults of active age 60 331 137 788 146 897 150 430 153 143 98 714 188 966 2 adults with 1 child 82 740 201 458 206 304 210 024 135 379 2 adults with 2 children 99 978 163 583 228 334 243 429 249 284 253 779 2 adults with 3 children 113 768 277 005 283 668 186 146 259 829 288 783 2 adults with 4 children 127 558 208 710 291 323 310 582 318 052 323 787 3 adults of active age 86 188 141 020 196 840 209 853 214 900 218 775 3 adults with 1 child 108 596 177 685 248 018 264 414 270 774 275 657 3 adults with 2 children 125 834 287 386 306 385 313 754 319 412 205 889 3 adults with 3 children 139 624 318 881 348 138 354 416 228 452 339 961 3 adults with 4 children 153 414 382 522 251 016 350 375 373 537 389 420 Households of persons above retirement age With one member 31 028 50 767 75 547 77 364 78 759 70 862 With two members 53 436 87 432 122 041 130 109 133 238 135 641 75 845 124 098 189 112 With three members 173 219 184 670 192 522

#### Time series of minimum of subsistence values (continued)

Table 4

						(1017/110/14
Household types	2000	2005	2010	2011	2012	2013
		Per one persor				
	Househo	lds of persons of	f active age			
1 adult	34 475	56 408	78 736	83 941	85 960	87 510
1 adult with 1 child	28 442	46 537	64 957	69 252	70 917	72 196
1 adult with 2 children	24 707	40 426	56 427	60 158	61 605	62 716
2 adults of active age	30 166	49 357	68 894	73 449	75 215	76 571
2 adults with 1 child	27 580	45 126	62 989	67 153	68 768	70 008
2 adults with 2 children	24 994	40 896	57 084	60 857	62 321	63 445
2 adults with 3 children	22 754	37 229	51 966	55 401	56 734	57 757
2 adults with 4 children	21 260	34 785	48 554	51 764	53 009	53 965
3 adults of active age	28 729	47 007	65 613	69 951	71 633	72 925
3 adults with 1 child	27 149	44 421	62 005	66 104	67 694	68 914
3 adults with 2 children	25 167	41 178	57 477	61 277	62 751	63 882
3 adults with 3 children	23 271	38 075	53 147	56 660	58 023	59 069
3 adults with 4 children	21 916	35 859	50 054	53 362	54 646	55 631
	Households of	of persons above	retirement age			
With one member	31 028	50 767	70 862	75 547	77 364	78 759
With two members	26 718	43 716	61 021	65 055	66 619	67 820
With three members	25 282	41 366	57 740	61 557	63 037	64 174

#### Time series of poverty thresholds

2006 2007 2008 2009 2010 2011 2012 Household types Per one household 55 296 1 adult 47 743 52 000 59 599 59 441 62 463 66 399 1 adult with 1 child 71 885 62 066 67 600 77 479 77 273 81 202 86 319 1 adult with 2 children 76 389 83 200 88 474 95 358 95 106 99 941 106 238 2 adults of active age 71 615 78 000 82 944 89 399 89 162 93 695 99 599 2 adults with 1 child 85 937 93 600 99 533 107 278 106 994 112 433 119 518 2 adults with 2 children 100 260 109 200 116 122 125 158 124 826 131 172 139 438 2 adults with 3 children 114 583 124 800 132 710 143 038 142 658 149 911 159 358 2 adults with 4 children 128 906 140 400 149 299 160 917 160 491 168 650 179 277 3 adults of active age 95 486 104 000 110 592 119 198 118 882 124 926 132 798 3 adults with 1 child 109 809 119 600 127 181 137 078 136 714 143 665 152 718 3 adults with 2 children 124 132 135 200 143 770 154 957 154 547 162 404 172 637 3 adults with 3 children 138 455 150 800 160 358 172 837 172 379 181 143 192 557 3 adults with 4 children 152 778 176 947 199 882 166 400 190 717 190 211 212 477 Per one person 47 743 66 399 1 adult 52 000 55 296 59 599 59 441 62 463 1 adult with 1 child 31 033 33 800 35 942 38 739 38 637 40 601 43 159 1 adult with 2 children 25 463 27 733 29 491 31 786 31 702 33 314 35 413 2 adults of active age 35 807 39 000 41 472 44 699 44 581 46 847 49 799 2 adults with 1 child 28 646 31 200 33 178 35 759 35 665 37 478 39 839 2 adults with 2 children 25 065 27 300 29 030 31 289 31 207 32 793 34 859 2 adults with 3 children 22 917 24 960 26 542 28 608 28 532 29 982 31 872 2 adults with 4 children 21 484 23 400 24 883 26 820 26 748 28 108 29 880 3 adults of active age 31 829 34 667 36 864 39 7 33 39 627 41 642 44 266 3 adults with 1 child 27 452 29 900 31 795 34 269 34 179 35 916 38 179 3 adults with 2 children 24 826 27 040 28 754 30 991 30 909 32 481 34 527 3 adults with 3 children 23 076 25 133 28 806 30 190 32 093 26 7 26 28 7 30 3 adults with 4 children 28 555 21 825 23 771 25 278 27 245 27 173 30 354

Table 5

(HUF/month)

(HUF/month)

Further information, data (links): Tables (STADAT)

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